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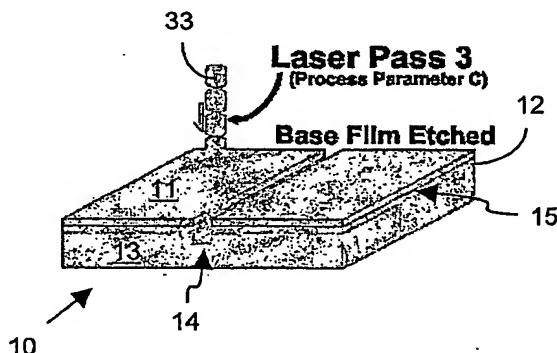
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(54) Title: DIE BONDING



(57) Abstract: A die bonding method and apparatus by which  
a wafer substrate 11 adhered to a carrier tape 13 by an adhe-  
sive layer 12 is laser machined through the wafer substrate and  
through the adhesive layer at most to scribe the carrier tape to  
form a singulated die 15 with an attached singulated adhesive  
layer, without substantial delamination of the adhesive layer 12  
and carrier tape 13 or substantial production of burrs from the  
adhesive layer 12. The carrier tape 13 is cured, preferably by  
ultraviolet light, to release the adhesive layer from the carrier  
tape. The singulated die is picked and placed on a die pad and  
the adhesive layer 12 is cured, preferably by heat, to adhere the  
die to the die pad.

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